

REMARKS

The Office Action mailed November 26, 2002, has been carefully reviewed and considered. Claims 1-36 were pending for consideration in the present application. By way of this amendment and reply, claims 1 and 12 have been amended. The title of the specification has been amended per the Examiner's request. No new matter has been introduced. Accordingly, claims 1-36 remain pending for consideration.

The drawings were objected to for alleged failure to comply with 37 CFR 1.84(p)(5). Specifically, Figure 2 includes a reference to "t" which, according to the Office Action, is not described in the specification. Applicant respectfully directs the Examiner's attention to page 2, lines 21-26 of the specification wherein both "t" and "t'" of Figure 2 are described. Accordingly, no corrections to the drawings or amendments to the specification in this regard are believed to be necessary.

Claims 1 and 12 were objected to for their use of the phrase "to be." This phrase has now been removed. Claims 1-36 were rejected under 35 U.S.C. § 112, second paragraph as being allegedly indefinite for their recitation of the term "predetermined" in independent claims 1 and 12. No amendment is believed to be necessary in this regard and for at least the reasons set forth herein, this rejection has been overcome. Claims 1 and 12 recite in their preambles "an opening is defined at a predetermined position of a film-like insulating substrate[.]" The term "predetermined" as used in claims 1 and 12 is not vague or indefinite. Rather, it refers to where in the film-like insulating substrate the opening is defined and indicates that such position is predetermined as opposed to random. The specification describes this feature at, for example, page 15, lines 14-18. Accordingly, Applicant believes that no amendments are necessary in this regard and respectfully requests reconsideration and withdrawal of the rejection under 35 U.S.C. § 112.

Also in the Office Action, claims 1, 12 and 14 were rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by Applicant's description of prior art. Claims 2-11, 13 and 15-36 were also rejected under various combinations

of prior art with Applicant's description of prior art as applied against independent claims 1 and 12. In view of the amendments to claims 1 and 12 and for at least the following reasons, these rejections are respectfully overcome.

Figure 1B of the specification shows a wiring board wherein opening 101 is provided for insulating substrate 1, electric wiring 2 which covers opening 101 is formed over the surface of the insulating substrate 1, and a conductive member (through hole plating 15) that is thinner than the insulating substrate 1 is disposed inside the opening 101. However, as clearly shown in this illustration, the conductive member (through hole plating 15) is protruding from the bottom surface of the insulating substrate 1, and a ball terminal 16 is mounted to the conductive member (through hole plating 15).

In contrast, the present invention avoids such protrusion of the conductive member. (see, for example, figure 6, opening 101 and conductive member 3). Claims 1 and 12, as amended, describe the present invention where "said conductive member having a thickness from a surface on which said electric wiring of the insulating substrate has been formed being thinner than that of said insulating substrate so as to prevent projection of said conductive member from the surface opposite to the surface to which said electric wiring is formed, and said conductive member and a soldering paste applied on an electric wiring of the mount board are connected by soaking up of said soldering paste into said opening." These features are not disclosed, taught or suggested by Applicant's description of prior art. The remaining claims depend from claims 1 or 12.

In view of the foregoing, Applicant respectfully requests reconsideration and withdrawal of the rejections under 35 U.S.C. §§ 102(b) and 103(a).

Applicant further respectfully submits that the claims are now in condition for allowance and solicits early notification of the same. Should there be any questions or concerns regarding the present application, the Examiner is invited to contact Applicant's undersigned representative by telephone.

A petition for a three-month extension of time, along with the appropriate fee, have been submitted concurrently herewith.

Respectfully submitted,

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Date



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Should additional fees be necessary in connection with the filing of this paper, or if a petition for extension of time is required for timely acceptance of same, the Commissioner is hereby authorized to charge Deposit Account No. 19-0741 for any such fees; and applicant(s) hereby petition for any needed extension of time.

**MARKED UP VERSION SHOWING CHANGES MADE****IN THE SPECIFICATION:**

Page 1, lines 1 and 2: WIRING BOARD UTILIZING A CONDUCTIVE MEMBER HAVING A REDUCED THICKNESS [WIRING BOARD, SEMICONDUCTOR DEVICE, AND PROCESS FOR PRODUCTION OF WIRING BOARD]

IN THE CLAIMS:

Below are the marked up amended claims:

1. (Amended) A semiconductor device wiring board wherein an opening is defined at a predetermined position of a film-like insulating substrate, an electric wiring provided with a connection terminal covering the opening is disposed on a principal plane of the insulating substrate, and a conductive member [to be] connected with the connection terminal of the electric wiring is disposed inside the opening, comprising:

said conductive member having a thickness from a surface on which said electric wiring of the insulating substrate has been disposed being thinner than that of said insulating substrate so as to prevent said conductive member from projecting from the surface opposite to the surface on which said electric wiring is formed, and said conductive member and a soldering paste applied on an electric wiring of a mount board are connected by soaking up part of said soldering paste into said opening.

12. (Amended) A semiconductor device wherein a wiring board in which an opening is defined at a predetermined position of a film-like insulating substrate, an electric wiring provided with a connection terminal covering said opening is disposed on a principal plane of said insulating substrate, and a conductive member [to be] connected with the connection terminal of said electric wiring is disposed inside the opening is placed; a semiconductor chip is placed on the surface of said wiring board on which said electric wiring has been

disposed; the electric wiring of said wiring board is electrically connected with an external electrode of the semiconductor chip; and said semiconductor chip, said electric wiring, and a connecting section for said electric wiring and said external electrode of the semiconductor chip are sealed with a sealing insulator, comprising:

said conductive member having a thickness from a surface on which said electric wiring of the insulating substrate has been formed being thinner than that of said insulating substrate so as to prevent said conductive member from projecting from the surface opposite to the surface on which said electric wiring is formed, and said conductive member and a soldering paste applied on an electric wiring of a mount board are connected by soaking up part of said soldering paste into said opening.